

Lyman's Grimm ALFALFA

4/22
NEW YORK STATE
COLLEGE OF AGRICULTURE
SCHOOL OF FLORICULTURE
CORNELL UNIVERSITY
ITHACA, N. Y.



PHOTOGRAPH above shows **Lyman's Grimm Alfalfa** on the left, as compared with common alfalfa on the right, grown on two adjacent square rods, sown in 1916 by the Agricultural Extension Division, University Farm, in co-operation with the County Agent of Fergus Falls, Minnesota.

This winter of 1916 was an exceptionally severe winter, which killed the common alfalfa, while **Lyman's Grimm** was uninjured as above shown.

A. B. LYMAN
Alfalfadale Farm

EXCELSIOR, - - - MINNESOTA

CORNELL UNIVERSITY
ITHACA, N. Y.

How I Discovered the Grimm Alfalfa

In 1890, while teaching school some ten miles west of home in Carver County, I found the farmers growing alfalfa, or "Ewiger Klee" (everlasting clover) they called it. I took a sample of the hay home and showed its superiority over red clover. The following spring my father purchased thirty pounds of alfalfa seed in Minneapolis and seeded two acres in barley and had a good stand. The next summer this cut three heavy crops of hay and there was quite another crop that we did not cut or pasture. In the spring we found the alfalfa all dead. This was a great disappointment and we were at a loss to know why it had winterkilled.

Later I found that the Germans still had a perfect stand, and upon a careful inquiry found that they had suffered no loss whatever. I remember asking one of the Germans in regard to his alfalfa and he replied, "I cut him three times," and when I told him of ours killing, he said, "I lose me no one plant."

About that time an article appeared in the Farmers Tribune telling of the great feeding value of alfalfa, but it said that alfalfa could not be grown in Minnesota, except in Carver County, and attributed our success to soil conditions. I read between the lines and formed the opinion that these Germans had a hardy variety. Upon investigation I found that the successful growers were getting their seed from a man named Grimm, while those who planted other seed were not successful. I told many persons of my discovery, but they thought little of it, not realizing the value of alfalfa.

In 1900 I was able to interest Prof. W. M. Hayes of our Experiment Station to the extent that during the following July, accompanied by Prof. Andrew Boss, he drove out to our place to investigate. They not only examined our fields but the fields of the German farmers in different parts of the county. The farmers were questioned as to where they had received their seed, and after a most careful investigation had been made, Professor Hayes turned to Professor Boss and said, "This marks the beginning of alfalfa in Minnesota." In March, 1903, he wrote Press Bulletin No. 20, in which he named this alfalfa Grimm, in honor of the old German who had developed it. Mr. Grimm had begun with 20 pounds of seed he had brought from Germany in 1857. For years he suffered loss by winterkilling, but he was persistent and would not give up. He patiently saved seed from the plants that survived. By so doing he built up a hardy alfalfa. As early as 1904 the Department at Washington became interested in this hardy alfalfa. From Page 25 of the **Annual Report of B. T. Galloway**, Chief of the Bureau of Plant Industry, we copy the following: "**Grimm Alfalfa**—Experiments thus far conducted indicate that this is the hardest variety of **Medicago Sativa** of which we have knowledge.

LYMAN'S GRIMM ALFALFA.

From Page 42 of the Annual Report of the Minnesota Agricultural Society of 1903, we copy the following:

Prof. Hayes: This is a young man I want to make an example of. When Mr. Lyman told me he had discovered this hardy alfalfa, I said to him, "You co-operate with the Experiment Station and I will co-operate with you, and we will give you a reputation as a seedsman." I expect to co-operate in helping Mr. Lyman distribute this seed where it will be used for growing seed. We expect to distribute some of it through the Department of Agriculture that it may be grown in other places and the seed produced even more abundantly than in Minnesota. Ever since I saw those fields and saw the evidence among the Carver county farmers that this was a hardy variety it has been a very interesting matter.

Prof. Spillman, Washington, D. C.: Mr. President, I am glad to see Professor Hayes take the stand that he does. I want to say a word about growing alfalfa seed. I cannot help but be impressed with this paper read by Mr. Lyman this afternoon as of vital importance to the future of agriculture in the State of Minnesota and in the Dakotas. We have been searching the world for a variety of alfalfa that would do just what this variety does. . . . The value of that seed represents more than a million dollars to the State of Minnesota.

From report of Alfalfa Specialist F. Forbell of the Minnesota College of Agriculture, taken from Hoard's Dairyman of September 7, 1917:

During the summer of 1915, 168 fields were established by the writer in Southeastern Minnesota. On 47 of these fields Grimm was sown alongside of Liscomb alfalfa—a variety which has been developed in Minnesota and advertised to be quite as hardy as the Grimm. On most of the remaining fields South Dakota Common and Montana Common seed was sown. During the winter of 1915-1916 an ice sheet of from two to three inches deep covered this section for from four to six weeks. All of the clover, rye, most of the Liscomb, and other common seed winterkilled; also much of the meadows and pastures. But the Grimm alfalfa came through the winter in excellent condition.

LYMAN'S
GRIMM



LISCOMB



One of the photographs from Mr. Forbell's test plot, in which Lyman's Grimm seed was used.

LYMAN'S GRIMM ALFALFA.

FROM GOVERNMENT BULLETIN NO. 209. BY CHARLES J. BRAND,
BUREAU PLANT INDUSTRY, WASHINGTON, D. C.

Page 21, Bulletin No. 209.

"Recognition of the superiority of the Grimm variety over ordinary alfalfa by Mr. Lyman and through him by Prof. Hayes of the Minnesota Station, marked a third era in the evolution of alfalfa culture in the Northwest. The Grimm alfalfa is much hardier than the ordinary kinds obtained from Kansas, Utah and elsewhere, and there is even strong reason to believe that it is the hardiest known form of the cultivated plant. It not only endures extremely low temperatures with or without snow and other adverse conditions, but it can be cut with greater safety late in the fall and will bear more abuse in the way of pasturage than any other plant that has been compared with it until this time. There is some disagreement among investigators as to how Grimm alfalfa obtained its hardiness, but there is no difference of opinion that it is hardy."

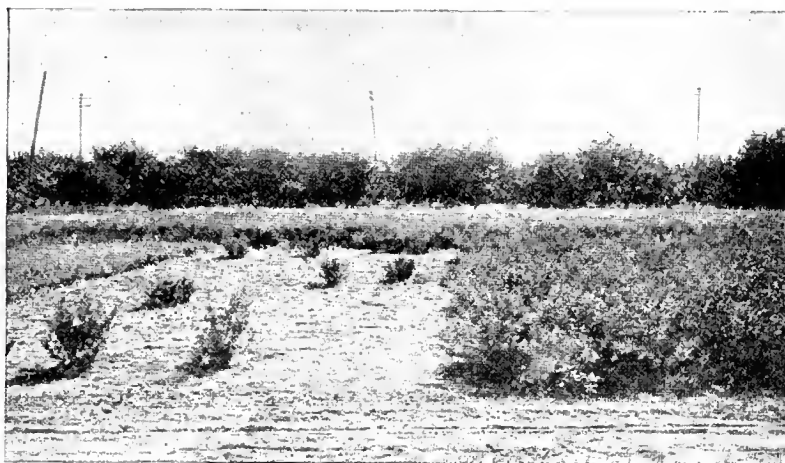


Fig. 2. Montana (at the left) Compared With Stand of Grimm Alfalfa of Same Age (at the right). St. Anthony Park, Minn., August, 1909.

In his annual report in 1907, the Secretary of Agriculture predicted that the further extension of alfalfa growing on large areas is a prize that will be worth hundreds of millions of dollars annually. With due persistence and an intelligent use of present knowledge, the North and Northwest can now begin to collect at least a part of their ultimate share of this prize."

In the fall of 1904, I sold the Bureau of Plant Industry, Washington, D. C., their first lot of Grimm seed. One year I shipped the U. S. Department of Agriculture, twenty sacks of Grimm alfalfa. The next fall, I sold it another load of 4,000 lbs.

LYMAN'S GRIMM ALFALFA.

B. Byron Bobb, Institute Lecturer, in an address before the Tri-State Convention at Fargo, N. D., 1918:

"With all the millions of acres of alfalfa in the United States there is yet need to import from Mediterranean countries more than one-fifth of all the seed sown within our borders. This is what the United States Department of Agriculture has to say of this imported seed:

Commercial Turkestan alfalfa seed is the cheapest seed on the European market, but sold by American seedsmen at a higher price than domestic seed; it is particularly unsuited to the humid eastern portion of the United States; it is mixed with a large assortment of foul and noxious weed seeds; it is not as hardy as other strains, recovers slowly after cutting, is of inferior hay yielding quality, and is an extremely poor seed producer.

"What an arraignment! Can you beat it! And yet there are men who say we have no need of producing alfalfa seed, that we can import it cheaper from Europe. These men are as cheap as is that seed.

"Now listen to what the same authority says of the Grimm alfalfa:

Extensive experiments conducted show conclusively that Grimm is thus far the most winter-hardy strain known. The very qualities that go for hardness go also for drought-resistance so that the Grimm is superior in this respect. No other strain recovers more quickly after cutting. It is one of the heaviest hay yielders in northern sections and possibly the best seed producer known.

"This is the seed we grow. This is the seed we will grow in competition against the world. The day is not far distant when the nitrate beds of Chili will have become exhausted, but before that day dawns alfalfa will have come into its own. There will not be a farm in this Union upon which it will not be growing. Our American farmers have already become purse-weary buying nitrates and are fast putting the alfalfa plant to work. A deterrent factor has been the very great number of failures in the east to get alfalfa started, due largely to the use of unsuitable seed. By reason of the climatic conditions—the freezing and thawing; the heaving and pulling action of the soils in all our eastern and central states—they require an alfalfa exceptionally well developed in its root habit. This is just what the imported alfalfas have not—just what northern grown Grimm has."

Chazy, N. Y., May 28, 1917.

Mr. A. B. Lyman,
Excelsior, Minn.

Dear Sir: We are pleased to advise that the Grimm alfalfa purchased from you is showing very satisfactory progress. It did not winter kill during the past season, has a good vigorous growth, and gives every indication of producing a large yield this year. Apparently it is well adapted to this section.

Yours very truly,
HEART'S DELIGHT FARM.

A PERMANENT STAND OF ALFALFA

Winterkilling and Its Remedies—By L. F. Garber.

(The Country Gentleman, March 10, 1917.)

"But it still remains that even where every regulation of growing and handling alfalfa has been followed out, it may winterkill. Where this occurs there is only one solution of the difficulty: Use seeds of the hardest-known varieties.

There is all the difference in the world between various kinds of alfalfa. Some, like the Peruvian of the Southwest, cannot stand the slightest Northern frost. Others will weather through the hardest winters and be ready for hushness the following spring.

I will not say that any alfalfa is absolutely winter-proof, but there are varieties that have a double-barreled, cast-iron hardness which makes them nearly so, and far superior to the common kinds in withstanding the rigors of severe open winter weather.

There is no doubt about it—the best alfalfas for those sections where winterkilling is a problem are the variegated strains. They are the hardest, longest-lived and best all-round producing alfalfas yet discovered for the snow-bound states.

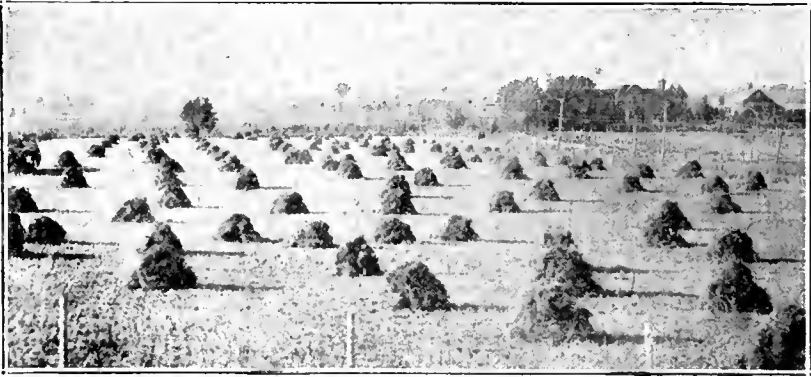
There are three principal varieties or strains grown here in the United States—Grimm, Baltic and Cossack. The Grimm is by far the most widely grown of the three.

According to the records, Grimm alfalfa was introduced into Carver county, Minnesota, in 1857, by Wendelin Grimm, an immigrant from Baden, Germany. He brought with him fifteen or twenty pounds of alfalfa seed, and sowed it in the spring of 1858. Just how well this first seeding of the "ewiger Klee"—everlasting clover—as he called it, succeeded is not definitely known, but at least enough of the plants survived to furnish seed for future sowings, and in 1867, 480 pounds were threshed from three acres.

In after years it seems that Mr. Grimm's neighbors attempted to grow alfalfa with common seed produced in other states, but in nearly every case the stands winterkilled, while the fields of Grimm were not injured. The attention of the Minnesota station was called to this alfalfa in 1901, and by careful experimentation Grimm alfalfa was found to be far superior to common kinds to withstand unfavorable winters. Since then its growth has been widely extended in the alfalfa-seed-producing states of the West, but even now the Grimm seed is high priced and it is rather hard to get the genuine article.

The much-advertised Cossack alfalfa was produced in 1907 by the United States Department of Agriculture from Russia. It has a more widely variegated flower than Grimm, but there is no evidence that it is superior in yields or hardness in the humid states to Grimm or Baltic.

LYMAN'S GRIMM ALFALFA.



The above picture was taken from the top of a mound on the County Farm at Vernon County, Viroqua, Wisconsin, and shows the second cutting of Lyman's Grimm alfalfa that grew in 27 days. This field is four years old and withstood the winter in 1915 when other alfalfas and common clover were killed.

Mr. A. B. Lyman,
Excelsior, Minn.

Viroqua, Wis.,
Nov. 28, 1917.

Under separate cover I am mailing you our "Annual Report" of our County Institution. From my knowledge of results of commercial alfalfa sown here I would not sow them at any price. This field produced over 6 tons per acre the past season, and is your Grimm.

C. W. FOWELL, Supt.

Prof. C. H. Zavitz, of Guelph, Ont., "the foremost agriculturist on the Continent," recommends my Grimm alfalfa.

An eighty page book Alfalfa, can be had by sending 60c to the author, Prof. L. F. Graber, Madison, Wis., care the Wisconsin Alfalfa Order. It tells how to prepare the land, plant seed and harvest the crop, etc. It will prove of great value to you.

Write for Farmers' Circular No. 1

"Plant Hardy Types of Alfalfa to Prevent Winter Killing"

to A. M. Ten Eyck, Emerson-Brantingham Implement Company, at Rockford, Illinois.

Mr. Ten Eyck is the Director of the Agricultural Extension Department of the Emerson-Brantingham Implement Co. This is a free circular and you should get a copy.

LYMAN'S GRIMM ALFALFA.

The Editor of National Alfalfa Journal, in an article entitled "Alfalfa with a Real Pedigree," writes in the issue of March, 1916, relative to Lyman's Grimm, as follows:

AN up-to-date farmer would hardly think of buying a pure bred cow without getting her pedigree. The value of the pedigree has been taught until we understand that it is necessary to know from what families have come the animals we buy.

It is just as important that we have pedigrees of alfalfa seed. The editor has maintained this for some time, but has not said much about it because there wasn't very much to say except theory. Here are some facts, however,

and I present them because I know they will stand out as the very best argument that could be given. This is the story of what has been done, not what I think might be done.

The story is about A. B. Lyman, the man who has put Grimm alfalfa on the map and who has had in use for some time an accurate system of pedigrees. He hasn't started a registry book with a fee for each lot of seed registered. He has done all of the work of keeping pedigrees merely to feel sure in his own mind that he was selling his customers what he claimed. No doubt he had a vision that some day farmers would demand a pedigree of alfalfa and wanted to be prepared for it.

Now what has been the result?

Mr. Lyman can give an exact pedigree of every field planted from his seed. It all traces back to the original stock brought to this country from Germany by Wendelin Grimm.

No, this system does not prevent unscrupulous parties from trying to take advantage of the reputation gained by Grimm alfalfa, but it does enable Mr. Lyman to prove that what he sells is

what he claims it to be. He took me out into his seed house to show me some seed. It was in a double sack and the inside sack was sealed. This seal is broken when the seed is repacked for retail, but another seal is put on so that if a customer receives a package with the seal broken, he knows it has been tampered with by someone along the way, and he can immediately get another shipment in its place so as to be sure that he is getting true Grimm.

I hope that this story of Mr. Lyman's methods will give someone else a hint and will bring about the production of more pedigreed seed. The average man who raises seed doesn't know for sure just what kind of seed he is growing, and, of course, cannot tell his customers what kind it is. If we need a pedigree registry like the livestock men, we'll have it, but first we need a few men who are willing to keep their pedigrees as carefully as Mr. Lyman has. We would be glad to hear from you if you have any ideas on this subject."



A. B. LYMAN

LYMAN'S GRIMM ALFALFA.

SEED GROWING.

The Grimm variety is a heavy seed producer. During the dry seasons profitable crops can be threshed in Minnesota, Wisconsin, and as far east as New York. It will seed best where the land is not too rich and the season is reasonably dry.

Some of my customers in the Dakotas and Montana have threshed and sold over \$200 worth of Grimm seed per acre. One of my customers has grown and sold over \$40,000 of Lyman's Grimm alfalfa seed from a \$40 investment made in 1911.

LIMING.

Western land like the Dakotas, Montana, or Nebraska, as a rule does not need liming. This is also true of the larger part of Minnesota. Some soils are acid. Soil can be tested by your Experiment Station, or you can make your



THE GRIMM IN COMPARISON WITH ORDINARY ALFALFA.

This photograph was furnished by Prof. Philo K. Blinn, Alfalfa Specialist of the Experiment Station at Fort Collins, Colorado. Professor Blinn writes that they are typical plants from their nursery plots, plants grown singly 20 by 20 inches, also that the one plant is 16 inches across the crown and calls attention to the low growing and underground stooling habit. This is the Grimm Alfalfa, the smaller plant is of the same age grown under the same conditions and is typical of the common alfalfa. The Colorado Agricultural College has labeled the one "The Root of Prosperity."

own test by using litmus paper which can be procured at any drug store. By placing paper in the soil it will turn a reddish color if soil is acid. Alfalfa will often do well even when the litmus paper shows that the soil is acid. Failures often due to lack of hardiness of variety are attributed to acidity. No doubt but that some soils need liming. Ground limestone is manufactured in many places in the United States and it can be bought reasonably where manufactured. It should be supplied at the rate of two tons per acre.

LYMAN'S GRIMM ALFALFA.

GRIMM AT MACDONALD COLLEGE, QUEBEC, CANADA.

In the spring of 1912, Prof. L. A. Klink of Macdonald College bought 300 pounds of my Grimm.

On Nov. 20th, 1914, R. Summerly, Lecturer in Cereal Husbandry, wrote me as follows: I have your letter of November 10th, addressed to Prof. Klink. He has taken a position as Dean of Agriculture at the University of British Columbia.

With regard to the Grimm seed purchased from you some years ago by this department, our experience has been that your alfalfa is by far the hardi-



"Lyman's Grimm" at Macdonald College, Ste. Anne de Bellevue, Quebec, Canada.

est of any alfalfa that it was possible to purchase on the market. I am sending a photograph of Grimm alfalfa from you, along side of thirteen commercial samples. You will see that it is much hardier than the others. Out of 88 varieties and strains of alfalfa, "Lyman's Grimm" was amongst the few that came through the winter of 1912 and 1913, a very severe winter.

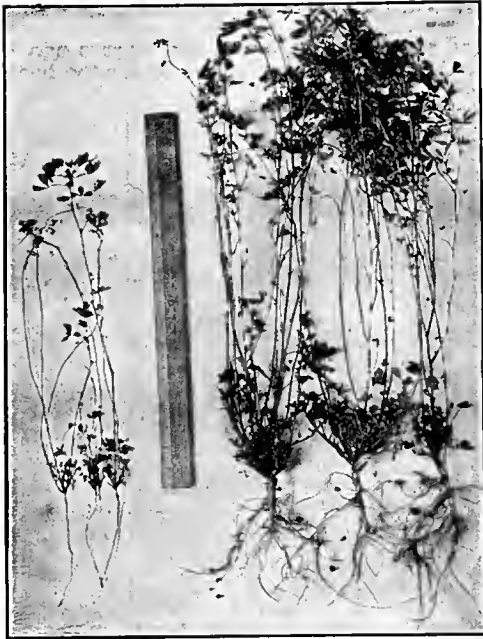
In another section of our experimental grounds, a half acre block of this alfalfa came through where Mammoth Red Clover, Medium Red Clover and Alsike Clover in similar adjoining blocks winterkilled. We are advising the use of Grimm seed whenever it is possible to get it for the Province of Quebec."

LYMAN'S GRIMM ALFALFA.

WE HAVE THOROUGHLY TESTED THE RELIABILITY OF THE EDWARDS' LEGUME BACTERIA.

All the requirements for successful inoculation are met in the cultures of EDWARDS' LEGUME BACTERIA. These cultures are manufactured by

the method originated and successfully followed for ten years at the Ontario Agricultural College and the stock cultures were secured from the Bacteriological Laboratory of that institution. There can therefore, be no question as to their efficiency. The cultures are made according to the best principles of the sciences of Bacteriology, and special attention is given to keeping up the vigor and nitrogen-gathering power of the bacteria.



Grimm Alfalfa plants from different portions of the same field, those on the right from seed inoculated with Edwards' Legume Bacteria, those on the left from the same kind of seed not inoculated. The ruler is 18 inches long. Notice the stocky growth, the thick sturdy roots, and nodule clusters on the inoculated plants as compared with the weak growth of the others.

bottle. We can furnish cultures for alfalfa, sweet clover, red clover, and all other legume crops.

THE COST.

EDWARDS' LEGUME BACTERIA cultures are made in two sizes, to inoculate 30, and 60 pounds of seed.

To inoculate 30 pounds, 60c, prepaid.

To inoculate 60 pounds, \$1.20, prepaid.

These prices mean a very low cost per acre, the exact amount depending on the amount of seed sown. Full directions are sent with each

SOIL INOCULATION.

Two hundred pounds of alfalfa or sweet clover soil scattered broadcast will inoculate one acre. Harrow immediately. An equal part of soil and seed sown together will supply the inoculation.

Duluth, Minn., August 9, 1917.

Mr. A. B. Lyman, Excelsior, Minn.

The twenty acres of your Grimm that I seeded in 1915 came through the winter again in fine shape. I do not think there was a loss of one plant by winter-killing.

The first cutting made two tons per acre and I think the second will be fully as heavy. I am very proud of this field.

Yours truly,

THEO. HOLLISTER.

St. Paul, Minn., July 5, 1917.

Mr. A. B. Lyman,

Proprietor, Alfalfadale Farm,
Excelsior, Minn.

Dear Sir: Your Grimm seed has been uniformly satisfactory. It is in fine shape and it looks to me as if the fields would be good for ten years more.

Yours very truly,

GEORGE T. SLADE,

Vice President, N. P. Railway.

LYMAN'S GRIMM ALFALFA.

Ames, Iowa, May 31, 1917.

Mr. A. B. Lyman,
Excelsior, Minn.

Dear Sir: There are very definite advantages in growing Grimm alfalfa in preference to other strains and varieties. In the first place it is absolutely hardy so that there is no danger whatever of winter-killing. In the second place, one may make four cuttings per year instead of three, as is customary with common varieties. With common varieties, it is necessary to leave a good covering on the ground in the fall while with the Grimm the extra cutting may be made in the fall without danger to the alfalfa. The third advantage in growing Grimm, as compared with some other hardy sorts, is the fact that it makes a strong and vigorous growth late in the summer with a result that blue grass and other weeds are not nearly so troublesome. I think there is no doubt but that the value of the extra cutting of a single season would much more than cover the additional cost of Grimm seed.

Yours truly,
H. D. HUGHES,
Professor Iowa State College.

Crystal Springs Stock Farm,
Larimore, N. D., Sept. 25, 1917.

Mr. A. B. Lyman,
Excelsior, Minn.

I have had your Grimm and our common alfalfa planted under identical conditions. For two years there was no great difference. Last winter was very severe and the common was badly hurt. Since the drouth struck us the common has all dried up while the Grimm kept right on growing. It formed a splendid set of seed pods but the early frost ruined it. I am certain that we would have had a fine seed crop if the frost had held off.

A. STONEHOUSE.

SHELDON MANUFACTURING CO.
Nehawka, Neb., Sept. 15, 1916.

Mr. A. B. Lyman,
Excelsior, Minn.

Dear Sir: When I placed an order some years ago for 10 lbs. of your Grimm alfalfa you wrote: "You will find it superior to your common in many ways. Do not seed it as heavy as it stools more."

To prove or disprove your statement I took two acres and seeded one with ten pounds of your Grimm and the other along side with 16 pounds of our common. The common came up the thickest and I thought the Grimm entirely too thin to be of any value. Time told the tale. The following spring the line of demarkation between these fields was very distinct. The Grimm is taller, covers the ground and is much heavier and better color than the common adjoining. This experiment should be of interest to you as eastern Nebraska is recognized as one of the best alfalfa sections in the country.

Yours truly,
GEO. C. SHELDON.

Mr. A. B. Lyman,
Excelsior, Minn.

We have one field of three acres and one of nine acres of your Grimm alfalfa. This season the nine acre field produced 54,650 lbs. on the first cutting while the three acre field produced over six tons per acre in 1916. This is the older field. Tried common alfalfa in comparison with your Grimm. It looked fine the first summer but all killed the second year. I have recommended your seed to a great many people. Hoping this may interest you,
Yours truly,

W. H. RANNEY, Supt.

H. P. HOOD & SONS FARM,
at Derry Village, New Hampshire.

Fulton, N. Y., June 19, 1917.

Mr. A. B. Lyman,
Excelsior, Minn.

Dear Sir: As you know, I purchased 30 pounds of Grimm seed last year. The ground was in fine condition when we sowed the seed, which was put in at the rate of about 14 pounds to the acre. This spring we find that we have as choice a piece of alfalfa as I have ever seen anywhere in the East. If anything, the stand is too heavy and it is possible that we would have done just as well not to have sown quite so much seed per acre. It would require considerable of an inducement for me to purchase other than your Grimm alfalfa for future seeding.

Yours very truly,
N. L. WHITAKER.

Sunnyside, Wash., June 24, 1917.

Mr. A. B. Lyman,
Excelsior, Minn.

Dear Sir: Last year I got two shipments of your Grimm seed. The three acres produced three cuttings last year, 12 tons of cured hay in all. My neighbor seeded an adjoining field with common alfalfa at the same time and this spring had to reseed owing to winter killing. I do not think I lost a plant. To say that I am pleased with your seed is putting it too mildly. I have got them all "skinned" about a ton to the acre, so I can't kick.

Respectfully,
E. S. McCULLOIL.

ASHKUM BANK.

Ashkum, Ill., July 1, 1917.

Mr. A. B. Lyman, Esq.,
Excelsior, Minn.

Dear Sir: Your letter of the 27th ult. is duly received and in reply will say that I sowed the 10 pounds of Grimm alfalfa seed about two years ago in with oats, also 25 acres of the other kind. We were able to see that your Grimm looked much better early in the spring, and has stood the winter better than the other seed. Everyone passing along this season wants to know why that part looks so much better than the rest of the field. We concluded it stood the severe cold weather better than any other kind we have used.

Yours truly,
M. R. MEENTS.

LYMAN'S GRIMM ALFALFA.

Augusta, Wis., August 21, 1916.

Mr. A. B. Lyman,
Excelsior, Minn.

Dear Mr. Lyman: My Grimm alfalfa was seeded on June 1, 1915, without a nurse crop, on a light sandy soil. A piece of about two acres was prepared and inoculated with soil taken from an old alfalfa field. Half of this field was seeded in with Grimm and other half was seeded in with a hardy Montana alfalfa. Special care being taken that both seeds should be grown under identical conditions. Both fields showed good stands in the fall, the Grimm being somewhat finer and not as coarse as the Montana. After a hard winter (the ground covered with ice much of the time because of the midwinter rains), we hardly hoped to see any of the alfalfa in the Spring. The Grimm came up with a good stand and the hardy (?) Montana was entirely winter killed. At the first cutting this year the Grimm was a very satisfactory stand.

Yours truly,
E. P. ASAL,
Cashier, Peoples State Bank.

Milford, Ill., February 8, 1916.

Mr. A. B. Lyman,
Excelsior, Minn.

Dear Sir: I think every one in this vicinity knows that only Grimm alfalfa will survive the winters in this soil and climate.

Enough other alfalfa has been tried and it is now generally known that western alfalfa will not succeed permanently here.

I cannot understand why people are so apathetic in regard to alfalfa. The worst drawback we find is that it produces so many crops that it is always on hand, like a sore thumb. It has no regard at all for a farmer's convenience when it needs cutting, it just has to be cut.

I have used perhaps 300 pounds of your seed and have always got a stand. It has never winter-killed.

Respectfully yours,
DR. O. O. HALL.

Mr. A. B. Lyman,
Excelsior, Minn.

Dear Sir: I am going to volunteer the belief that your Grimm alfalfa is the thing for our climate of alternate freezing and thawing. Two acres of Grimm sown last fall on my farm at Arcola have wintered splendidly and showed no upheaval; while four acres of ordinary seeding right beside it suffered badly. In a four-year-old plot of ordinary alfalfa in the same field, alfalfa roots 18 inches long were upheaved by the alternate freezing and thawing, and lay flat on the ground.

IRVIN P. KNIPE,
Attorney-at-Law,
5 E. Airy St., Norristown, Pa.

Hillsdale, Mich., July 11, 1917.

Mr. A. B. Lyman,
Excelsior, Minn.

Dear Sir: I purchased 16 pounds Grimm seed in 1915, and can report great success with this field. I only sowed eight pounds per acre, and this field is much better than an adjoining field where 15 pounds per acre was sown. There has been a great loss in this state during the past winter by alfalfa killing out, but the Grimm came through the severe winter without any damage, and I cut a larger crop of hay than ever before. I consider Grimm the cheapest to buy, because it is sure. The loss comes when one is not sure.

Very truly,
C. T. VAN AKEN.

Kent, Ohio, July 2, 1917.

Mr. A. B. Lyman,
Excelsior, Minn.

Dear Sir: Am glad to say my Grimm alfalfa did very nicely. We had $6\frac{1}{2}$ loads from $2\frac{1}{2}$ acres. Every one who has seen it of late says it is the best and most even piece they ever saw. It is needless for me to say I am more than pleased with my Grimm alfalfa. It stood waist high. I expect to want more of your seed next year.

Yours truly,
J. F. MERKEL.



PHOTOGRAPH OF J. F. MERKEL
FIELD, KENT, OHIO.

Avondale, Maryland, June 30, 1917.

Mr. A. B. Lyman,
Excelsior, Minn.

Dear Sir: The seed arrived in good shape. I sowed six pounds to the acre. This alfalfa came through last winter in fine shape. I made one crop and the second one is about ready for the mower. The first crop made two tons to the acre. This Grimm alfalfa was sowed just next to some other seed and the winter killed almost all of this common alfalfa.

JAMES W. BEACHAM, Jr.,
Dairy Farmer.

LYMAN'S GRIMM ALFALFA.



"Lyman's Grimm" Planted by F. R. Stevens, Agriculturist, for the Lehigh Valley R. R., of Geneva, N. Y.

Mr. Stevens writes me as follows: "This is one of our Grimm alfalfa plots seeded two and one-half feet apart on the hardest kind of volusia silt soil, a soil that our experiment stations said would not grow alfalfa. I am more than pleased with your seed and look forward to a decided increase of your variety as a result of these tests."

LeRoy, N. Y., Nov. 27, 1914.

Mr. A. B. Lyman,
Excelsior, Minn.

Dear Mr. Lyman: In answer to the questions regarding the Grimm alfalfa in your letter of the 11th, will say that the 20 pounds of seed I had of you in 1912. I sowed on July 8th at the rate of five pounds per acre. I sowed it with a grain drill, drills 7 inches apart and run them very shallow. I had prepared the land very carefully and applied one ton of lime per acre and inoculated it with about 300 pounds of soil from my old alfalfa field and gave it a good top-dressing of manure.

I secured a good stand and this year, the second year of cutting, I secured fully as much hay per acre as from common alfalfa sown under the same conditions at the rate of 20 to 25 pounds of seed. It branches more and is more leafy than the common alfalfa and is about one week earlier in coming into bloom. The bloom was very much heavier than on the common, and varied from white and yellow through all the shades to very dark purple and black.

Very respectfully yours,

(Signed) F. P. HAZELTON.

Mr. A. B. Lyman,
Excelsior, Minn.

Dear Sir: Replying to your inquiry as to the condition of my fields seeded with Grimm alfalfa seed, purchased from you, I wish to say that they are in splendid condition. I know of no alfalfa in my section of the state where as good a stand has been secured and as vigorous a crop has been obtained, as that which I seeded with Grimm alfalfa purchased from you. One field has been in now four years, and last year's crop was as heavy as the first cutting from the field. It is a pleasure to me to recommend the Grimm alfalfa seed grown by you as being the very best that can be purchased in my opinion for use in Minnesota. It is very important that one purchasing alfalfa seed should be sure that the real Grimm alfalfa seed, such as you raise, is obtained.

M. D. MUNN, President,
The American Jersey Cattle Club,
St. Paul, Minnesota.

Union Stock Yards,
Chicago, Ill., July 3, 1917.

Mr. A. B. Lyman,
Excelsior, Minn.

In 1914 I bought 35 pounds of your Grimm alfalfa seed. This seeding made an extra good stand and has withstood the winters since that time. The last winter as you know, was very hard and considerable alfalfa killed out. All of my Grimm alfalfa stood. I do not think a stalk was killed. Five acres of ordinary alfalfa which I had killed out, so that I plowed it up.

Yours truly,

F. W. TUBBS.

LYMAN'S GRIMM ALFALFA.

The following photograph by Louis Klass of Maple Park, Ill., tells the story better perhaps than any one else that has written me.



"A SURVIVAL OF THE FITTEST."

This picture was taken June 11, 1912, on the Pierce Center Stock and Dairy Farm and represents an alfalfa field. The part in the background was sown in the fall of 1903 and the part in the foreground in 1911 to common northern grown seed—both were winter killed last winter. The central and remaining portion was sown in 1910 to Grimm's Hardy Seed secured from A. B. Lyman, Excelsior, Minn., and is a thrifty survivor of the severe freezing of last winter, the only possible factor of influence being that of variety.

—Louis H. Klass, Maple Park, Ill.

Milledgeville, Ga., April 4, 1917.

Mr. A. B. Lyman, Proprietor,
Excelsior, Minn.

Dear Sir: In the fall of 1915 I bought a small quantity of Grimm alfalfa which I planted alongside of common alfalfa. I can now take off my hat to Grimm alfalfa, as it has stood and covered the ground. The main thing that I want to tell you is that my common alfalfa has been killed to the ground twice this winter, but the Grimm stood the test.

Yours very truly,

L. H. ANDREWS.

Haynes, N. D., Oct. 29, 1917.

Mr. A. B. Lyman,
Excelsior, Minn.

I have had grand success with your Grimm alfalfa. None of it has ever winter killed. I had thirteen acres of Cossack planted beside of the Grimm. It killed completely root and branch the past winter while the good old Grimm right alongside of it was as good as ever. My alfalfa is seeded in thirty-six inch rows which is a severe test.

Yours very truly,

BYRON B. BOBB.

THE WHITE ADDING MACHINE CO.
Chas. M. Jarvis, First Vice President,
York and Grove Streets.

New Haven, Conn., June 13, 1914.

Mr. A. B. Lyman,
Proprietor Alfalfadale Farm,
Excelsior, Minn.

My Dear Mr. Lyman: In 1911 I sowed about a quarter of an acre of land, half with your Grimm alfalfa and the other half with ordinary alfalfa. During the crop year of 1912 and 1913 I noticed no appreciable difference in the yield between the two varieties. During the past winter, owing to severe sudden changes in the weather, nearly all of the alfalfa in New England killed out. In the quarter acre referred to above the Grimm alfalfa looks beautiful—as fine a piece of alfalfa as I have ever seen, but the other half sowed with the ordinary seed is from twenty to forty per cent winter-killed. The line of demarkation between the two pieces is very clear and distinct. This proves conclusively to my mind, and I have been growing alfalfa for ten years, that Grimm is the only variety that will stand our New England climate and hereafter I shall sow nothing but Grimm. Enclosed please find order for 100 pounds to be shipped at once to me at Berlin, Conn., by express.

(Signed) CHAS. M. JARVIS.

VALUABLE INFORMATION.

In the face of all this endorsement, can you plant alfalfa other than Grimm and feel assured that you will have a field of alfalfa after the first hard winter? I want to impress on your mind the importance of getting true Grimm. If its history can not be traced to Carver County, Minnesota, it has no claim whatever to the name Grimm. I furnish each customer an **AFFIDAVIT CERTIFYING THAT THE SEED SUPPLIED IS TRUE GRIMM**. I can do this as we have record tracing each lot back to Grimm, whose home was but a few miles from ALFALFA DALE FARM.

I have not said much about method of seeding. Alfalfa can be seeded almost any time during the summer. It is seeded different in different localities. Many seed in the spring in grain and this is all right if the land has been well farmed. It pays to have a good firm seed bed and not to plant too deep. Read what you can on this point and then depend a good deal on your own good judgment.

If the people could only realize what this hardy alfalfa really means. There need be no meat or food shortage with alfalfa on every farm. The dairy interest would be greatly benefited. Alfalfa and silage form almost a perfect ration for dairy cattle and one need not go to the mill for high-priced feed. Where true Grimm is used one can be certain of alfalfa hay to feed live stock even after the most severe winters. What does this mean these times of high priced grain? It means more live stock can be grown and more money can be made than with any other farm crop.

This variety requires 40% less seed than other kinds because of its stooling habit. Its hay quality is better as it is finer stemmed and more leafy. It will produce the maximum quantity of the very best quality. I dare say that we can grow more grain and corn than we are now doing with the alfalfa thrown in for extra measure because of added soil fertility. It adds nitrogen to the soil, the one thing that growing crops need. I know of no other farm crop that will enrich the land like alfalfa. This added fertility would be brought about by feeding the alfalfa on the farm and later after it is used in rotation. As early as 1906 one of the Alfalfa Experts from Washington, D. C., stated that what we had done by bringing out this alfalfa would in time add a Billion Dollars to the Agricultural interests of the country. This will actually be true in a few years.

It does not pay to go to all the trouble in getting alfalfa started and plant common alfalfa and have it kill later when with the same labor one can plant a hardy variety and succeed. Mill feed is very high if not prohibitive. With a good supply of alfalfa hay and silage one does not have to buy grain.

Lyman's Grimm Alfalfa

We ship in sealed sacks.

Our alfalfa shows a purity test of 99% and over. If you find that it contains any seed or dodder, quack grass, Canada thistles, sow thistles, you can return same at our expense and we will cheerfully refund your money.

I have a scarifying machine and all seed is scarified before it is shipped out. As the Grimm variety is noted for its hard seeds, this scarifying or scratching process produces a high per cent of generation.

Shipping Directions: There is no embargo on seeds. Freight and express rates are reasonable. We guarantee safe delivery.

PRICES:

Pound, postpaid 80c; 10 lbs. \$6.00; 20 lbs. \$11.00;
30 lbs. and over 50c per pound

A. B. LYMAN

Proprietor of Alfalfadale Farm

EXCELSIOR

MINNESOTA

2½ miles south of Excelsior

Both Phones

You are invited to Alfalfadale Farm. Phone us and we will meet you at the street car.

References:

Dunn, Bradstreet, and the Minnetonka State Bank,
Excelsior, Minn.